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PREPARATIONS FOR THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT ON THE BASIS OF GENERAL ASSEMBLY RESOLUTION 44/228 AND TAKING INTO ACCOUNT OTHER RELEVANT GENERAL ASSEMBLY RESOLUTIONS: RECENT ACTIONS OF INTERGOVERNMENTAL AND OTHER BODIES OF RELEVANCE TO THE PREPARATORY PROCESS

Environmental accounting for sustainable development

Note by the Secretariat

SUMMARY

The Commission on Transnational Corporations requested the United Nations Centre on Transnational Corporations (UNCTC) to provide the Preparatory Committee on the United Nations Conference on Environment and Development at its third session with information on prototype financial statements that would enable corporations to report their net income on a sustainable basis. This report is in response to that request. It describes the work undertaken by the UNCTC on the topic of environmental accounting at the corporate level. It parallels the work in national income accounting where efforts are under way to include environmental considerations in the measurement of GNP. Likewise, at the corporate level, better measures are needed for corporate income which incorporate the concept of sustainable development. One phase of the work seeks to develop prototype financial statements which would internalize the full cost of production, including environmental costs. Such accounts would allow enterprises to calculate their

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sustainable income and would reflect the new social contract between enterprises and all stakeholders, including future generations. The other phase concerns the improvement of traditional financial statements so that they better reflect how the enterprise's environmental protection measures affect its financial position and performance. The world faces the immediate task of accounting for a growing mountain of environmental liabilities, for which society is trying to sort out responsibility, trying to determine who is going to pay for what. The Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR) has developed recommendations which enterprises could use to account for their environmental obligations.

Introduction

1. The Commission on Transnational Corporations requested that the Preparatory Committee on the United Nations Conference on Environment and Development at its third session be provided with information on prototype financial statements that would enable corporations to report their net income on a sustainable basis. This report is in response to that request. It describes the work undertaken by the United Nations Centre on Transnational Corporations (UNCTC) on the topic of environmental accounting. The work has been divided into two phases. One phase of the work seeks to develop prototype financial statements which would internalize the full cost of production, including environmental costs. Such accounts would allow corporations to calculate their "sustainable" income much in the same way as adjustments in national income accounting allow one to calculate "sustainable" GNP. 1/ The other phase concerns the improvement of traditional financial statements (balance sheets and income statements) so that they better reflect how the enterprise's environmental protection measures affect its financial position and performance and in particular, deal with the mountain of environmental liabilities which some enterprises have accumulated. Improved financial statements would also enable stakeholders to evaluate how the enterprise is implementing its environmental policy and management plan.

I. Accounting for sustainable development

2. Sustainable development as a concept and strategy is being applied at national and global levels. For example, efforts have been under way for quite some time to introduce adjustments to the measurement of GNP so it better reflects the costs of environmental depletion and degradation. Better measurement will push policy-makers to alter their non-sustainable development strategies when they see that those strategies result in lower growth rates, not just for the future generation, but for the present generation as well. But what is to alter corporate behaviour which is based almost entirely on short-term considerations. For those corporate managers who focus exclusively on this quarter's financial results, one year is the long-term. There is a growing concern with such short-termism and now there are serious discussions about corporate accountability and corporate stewardship. The main focus of the UNCTC project on accounting for sustainable development is to help TNCs develop better tools, particularly in the area of financial management, so that they can become better stewards.

3. The main challenge of the project on accounting for sustainable development will be to develop an acceptable valuation method for quantifying the unrecorded costs of non-sustainable economic activity. This requires that asset and liability boundaries be redefined and that includes quantifying the extent of resource depletion and degradation due to an enterprise's activities. A key output of this project will be a set of resource-based accounts that measure an enterprise's progress in thrift and management of environmental capital. 2/

4. To understand the compelling need for further research and development in accounting for the environment, it is important to review why traditional financial accounting - even improved by the recommendations of the Secretary-General - does not suffice (see section II below). Double-entry accounting cannot deal with social costs, despite their long association with commercial activity because these costs are external to the enterprise and are not based on any transaction with which the enterprise is involved. Environmental damage is only one kind of social cost. Early industrialization depended in part on child labour; mining went hand in hand with catastrophic hazards and long-term illness, like black-lung disease; ventures such as the building of the United States and Canadian railroads cost many lives and broke up untold numbers of families.

5. Current accounting practices suffer from various flaws when it comes to acknowledging an enterprise's dependence on natural resources. It does not account for the full costs of production, including the costs of consuming essential natural resources such as air, water and fertile land. It does not account for them because they often have no monetary value assigned to them. Double-entry accounting efforts, based on almost 500 years of practice, are geared to measure financial transactions rather than resource consumption.

6. In addition, accounting rules penalize, rather than encourage, the environmentally responsible corporation. The more a corporation spends on prevention and clean-up, the less per share it earns in the short run. Accounting lacks a vehicle for recording "green assets" and monitoring their use, for distinguishing between the costs of renewable versus non-renewable resources and for providing accounting incentives to improve environmental protection.

7. Central to the concept of sustainable development is the need to account for natural capital, with natural resource accounts that measure resource management. Environmental accounting would measure the resources consumed in producing goods and services for trade and for promoting public welfare as well as the resources preserved and the wealth created for future use in accordance with conventions mutually agreed upon by the stewards of these resources and the stakeholders to whom they are accountable. The biggest difference between environmental accounting and traditional financial accounting is that environmental accounting would focus on an ecosystem rather than an isolated corporate entity. An ecosystem encompasses an interdependent web of natural habitats, an economic infrastructure, a social system and ethical values. An ecosystem, for example, on the west coast of Vancouver Island would include the rainforests, the streams in which salmon spawn, the local and regional economy based on logging, pulp mills and tourism, the social fabric of the small towns and native communities, as well as the ethical values of the loggers, indigenous peoples and tourists. Environmental accounting would report to all these different stakeholders or players in this living ecosystem.

8. Environmental accounting accounts for both the impact of the environment on earnings and the impact of earnings on the environment. Investors need a preview of coming attractions in addition to a report on their short-term results. They need to know about the capital costs of future compliance with environmental regulations. While traditional financial accounting is based on

the current concepts of private property and stewardship for the interests of shareholders, environmental accounting envisages accounting for environmental obligations associated with common use property - shared resources - as well as accounting for shareholder stewardship. "Stakeholder" stewardship involves the rights and obligations of shareholders, customers, and local communities affected by environmental degradation, as well as the implicit rights of other species and other habitats. Stakeholders need information to make decisions on the highest and best uses of resources. How can the necessary information be supplied in order to make those decisions?

9. In addition to traditional financial statements, corporations could prepare satellite environmental accounts that provided information which could be aggregated to present an overall accounting of the ecosystem managed. France is the only country in the world which has designed resource accounts for use at the corporate level. The proposed satellite accounts would provide information on changes during the year to physical stocks of resources as well as their asset values. These satellite accounts would provide information on environmental obligations (clean-up, reclamation, reforestation costs) as well as information on emission and effluent levels. The objective is to make the future explicit - today. In short, there would be full accounting, in physical and monetary terms, for natural capital via a natural asset account. That account could be used to calculate "green" dividends for investors and "green" prices for consumers.

10. The UNCTC will also develop a public environmental performance statement. An environmental audit is a systematic investigation of a corporation's environmental, health and safety programmes to evaluate its practices against recognized country, company and industry standards. Many corporations currently undertake such audits such as an internal management tool. As such, the results of these audits are generally not released to the public on the grounds that such release would destroy their utility to management. However, one of the essential elements for sustainable development is improved public access to environmental information at the enterprise level. The availability of such information will influence the behaviour of corporations as well as allow stakeholders to assess how well the enterprise is implementing its environmental policy. UNCTC will seek to set minimum standards for statements released to the public.

II. Improving traditional financial statements

11. There are pressing problems which cannot wait for the design and implementation of prototype financial statements. Auditors, securities' regulators, banks, insurance companies, and shareholders are concerned by the fact that corporate environmental expenditures and liabilities were growing in size, especially for those enterprises operating in sectors that had significant impacts on the environment. According to the World Economic Forum 650 industrial leaders ranked environmental problems as the number one challenge facing business. This view was reiterated by 87 per cent of the corporate finance directors polled in the United Kingdom who saw the environment as a significant issue for their business. Fifty-five per cent believed it raised financial concerns for their companies. Yet despite this concern, only 27 per cent of the United Kingdom enterprises in the survey reported anything on the environment in their annual statements. 3/

12. Securities' regulators, insurance companies, banks and shareholders were particularly concerned about unreported contingent liabilities which might have an adverse affect on the corporations' net worth. For example, five transnational oil companies booked $3 billion in special charges to provide for environmental problems in 1989. Over the past two years (1989-1990) Exxon alone accounted for $2.2 billion in clean-up costs and damages and in 1991 was fined an additional $1.1 billion for its accidental oil spill in Prince William Sound. Over 300 lawsuits are pending. In its 1989 10-K form, a United States chemical TNC stated that it will spend $1.5 billion between 1990-1994 for environmental protection. It is also estimated that, at least $675 billion will be required to clean up existing "superfund" land-fill sites in the United States. Costs for sites cleaned so far have ranged from $20 to $40 million per site. In Western Europe, the clean-up bill is expected to be at least $65 billion. And in Eastern Europe, the environmental damage has yet to be quantified. These are a few examples to illustrate that new kinds of liabilities are being created and that the frequency and magnitude of some liabilities that were minor in the past may be increasing rapidly. In all, the world is now likely facing, at least, a trillion dollar environmental obligation. 4/

13. The accounting profession is faced with unprecedented disclosure problems in how, and when, to account for the potential contingent liabilities. The end result is that billions of dollars of previously unrecognized environmental costs will have to be disclosed and in some cases booked in corporate financial statements. And one of the key problems here is that accountants do not yet really know how to account for clean-up costs and the related liabilities in a reasonable way.

14. The Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting undertook a review of environmental laws and regulations in various countries regarding information disclosure on environmental matters. It also carried out an in-depth review of the accounting practices of 20 TNCs in 10 countries. This was supplemented by existing reviews which had been already carried out by the UNCTC and other bodies, in particular reference was made to the World Survey of Published Accounts which covered 200 TNCs. These surveys confirmed the fact that despite the heightened awareness of some TNCs, the consideration of environmental issues was not widespread in their annual reports. ISAR surveys showed that the absence of accounting regulations allowed enterprises wide latitude in what they reported. The information given on environmental protection measures was largely descriptive and often contained no more than corporate policies or intentions or as one green accountant stated, "PR" puff. Little quantitative information was given on a consistent basis which would enable users to determine over time the impact of environmental issues on the financial position and performance of the corporation. 5/

15. Generally, when information appeared, it was found in the board of director's report rather than in the financial statements or the notes. In addition to lack of guidance on the subject, enterprises mentioned a number of obstacles which discouraged them from taking or reporting environmental protection measures. First, there was the fact that in many countries expenses were only deductible for tax purposes when paid. As a result, there was no incentive to record liabilities. Secondly, short-term earnings

pressures were also noted. Since investors scrutinized earnings per share, corporations put off taking measures which would reduce income. Lastly, many corporations complained that it was too difficult to separate environmental costs from others, particularly in the case of investment expenditures. Some of the corporations said that guidance in the area of environmental disclosure should be more specific.

16. In a second survey of firms which engaged in "best practice" accounting, it was determined that accounting for environmental expenses is indeed feasible. Some of these best practices have been in effect for many years, and they are straightforward, practical and time-related. When the TNCs were questioned as to why they had adopted such practices, they explained that since environmental expenditures were a large and growing share of their total expenditures, they needed to keep track of them. Once having the information, they also claimed that the publication of this information was valuable. They received fewer questions on their environmental performance in shareholders' meetings and local Governments were more likely to grant approvals for new projects based on their reputation for adequate information disclosure.

17. The reporting issues associated with environmental expenses are tractable and essentially of a definitional and classificatory nature. Unfortunately, environmental liabilities have proven considerably more problematic. Environmental liabilities are governed by the current accounting rules on contingent liabilities. They suffer from a number of limitations which are obvious to any one who cares to look, for example, at Occidental Petroleum's consolidated financial statements. For instance, in the 1989 statements, disclosure of contingent liabilities with the Love Canal clean-up rates only half a page. There is no real disclosure of the estimated loss or range of losses. It is largely silent on whether any accruals have been booked, and even on whether an estimate of loss is possible. And this is but one of the many possible examples of the great need to find a better way to account for the trillion dollar environmental obligations mentioned earlier. Many enterprises surveyed in 1989 and 1990 acknowledged that environmental liabilities existed but were uncertain as to how they might be included in financial statements. The main difficulty was arriving at a "reasonable estimate". In general, future obligations are recorded as liabilities when a legal obligation (via statute, assessment or otherwise) to remedy an existing situation has been determined. Because of inherent uncertainties in future legislation, technological change and extent or nature of environmental clean-up required, long-term accrued liabilities are often difficult to determine and calculate. None of the enterprises surveyed indicated what their liabilities related to environmental expenditures totalled.

18. Equally, regulatory bodies have had considerable problems with respect to these liabilities. Essentially, the problem revolves around whether the liability to engage in clean-up or remedial action is identical to other types of contingent liabilities or whether environmental liabilities represent a particular problem. It would seem that in North America, there is some agreement that environmental liabilities are worthy of special attention. The Canadian Institute of Chartered Accountants noted that there may be potentially significant contingent liabilities arising, some of which may be unrecognized and undisclosed. The fact that the current accounting standard was not written in contemplation of the type of massive environmental

restoration costs currently facing some entities may be contributing to inadequate accounting. It recommended that provisions are needed to accrue the liability for future removal and site restoration costs, when the likelihood of their occurrence was established as a result of environmental law or because the enterprises had established the policy to restore a site.

19. It should be noted that some regulatory authorities have already given additional guidance in the case where there is a legal responsibility to clean up a site. For example, since May 1989 the United States Securities and Exchange Commission requires management to take the following steps in the case of liabilities to remedy hazardous waste sites:

(a) Determine whether an event is NOT likely to occur; if it can be determined that an event is not likely to occur, no disclosure is necessary;

(b) If that determination is impossible, then management must objectively evaluate the liability on the assumption that it will come to fruition; disclosure is then required unless it can be determined that a material effect is not reasonably likely to occur;

(c) The latter determination must be objectively reasonable when viewed at the time the determination is made.

III. Recommendations of the Secretary-General for better accounting and reporting for environmental protection measures

20. Based on its surveys of best industry practices in 1989 and 1990 and its detailed consideration of the nature and methods of dealing with environmental liabilities, ISAR reviewed the following recommendations of the Secretary-General and decided to circulate them as widely as possible for the consideration of Governments and interested parties.

Conclusions for consideration by Governments and interested parties

1. The following are items that could be considered by the board of directors for inclusion in their report/management discussion in order to deal with relevant environmental issues:

(a) The type of environmental issues that are pertinent to the enterprise and its industry;

(b) The formal policy and programmes that have been adopted by the enterprise with respect to environmental protection measures;

(c) In cases where no such policy and programmes exist, this fact could be stated;

(d) The improvements in key areas that have been made since the introduction of the policy, or over the past five years, whichever is shorter;

(e) The environmental emission targets that the enterprise has set for itself, and how the enterprise is performing relative to those targets;

(f) The extent to which environmental protection measures have been undertaken due to governmental legislation and, the extent to which governmental requirements (for example, a timetable for the reduction of emissions) are being achieved;

(g) Any material proceedings under environmental laws; management should disclose a known and potentially significant environmental problem unless it can objectively conclude that the problem is not likely to occur or, if it does, that the effect is not likely to be material;

(h) The financial or operational effect of environmental protection measures on the capital expenditures and earnings of the enterprise for the current period and any specific impact on future periods;

(i) When material, the actual amount charged to operations in the current period, together with a description of the environmental measures to which they relate. This amount might be subdivided into the following general ledger accounts:

(i) Liquid effluent treatment;

(ii) Waste gas and air treatment;

(iii) Solid waste treatment;

(iv) Analysis, control and compliance;

(v) Remedial measures;

(vi) Recycling;

(vii) Other (for example, accidents, safety etc.);

(j) In cases where it is not possible to segregate the amount that relates to environmental protection measures, this fact could be stated;

(k) When material, the actual amount capitalized during the current period, the accumulated amount capitalized to date, and the period for amortizing, or writing off, such amounts, together with a description of the environmental measures to which they relate. This amount might be subdivided into the categories listed in (i);

(l) In cases where it is not possible to segregate the amount that relates to environmental measures, this fact could be stated.

2. As accounting policies are normally described in the notes to the financial statements, the following environment-related accounting policy notes could be included therein:

(a) Recording liabilities and provisions;

(b) Setting up catastrophe reserves (through appropriations of retained earnings);

(c) Disclosure of contingent liabilities.

3. As contingent liabilities are normally disclosed, if material, in the notes to financial statements, the following environment-related items could be included therein:

(a) Liabilities, provisions and reserves that have been set for the current period, and amounts accumulated to date;

(b) Contingent liabilities, with an estimate of the amount involved, unless the event is not likely to occur. The possible loss could be quantified to the extent reasonably practicable. If the possible loss cannot be reasonably calculated, a description of the contingent liability could continue to be furnished and the reason could be given why an estimate of the amount of the loss cannot be made. Completion of a feasibility study of remedial costs may be normally considered as the earliest date at which a reasonable estimate of the liability is possible.

IV. Future work in accounting for sustainable development

21. The project on accounting for sustainable development faces many challenges. First, pioneering work must be done to develop usable prototype financial statements which will help corporations become better stewards. Second, corporations must be convinced to use these new tools and in doing so, to change their corporate behaviour just as national policy makers are changing their national development strategies when confronted with the results of green accounting. On a more practical level, in the meantime, Governments and TNCs have been urged by ISAR to consider the recommendations of the Secretary-General which, if implemented, would ensure that corporate financial statements take into account growing environmental liabilities.

Notes

1/ P. Bartelmus, C. Stahmer and J. Van Tongeren "SNA Framework for Integrated Environmental and Economic Accounting", paper presented at the International Association for Research in Income and Wealth, 21st Conference, Lahnstein, Germany, 1989.

2/ D. Rubenstein, "Accounting for the Sustainable Development of Our Forests: Project Prospectus", Office of the Auditor General of Canada, Ottawa, March 1991.

3/ Coopers & Lybrand Deloitte, Environment and finance function: Survey of finance directors, London, September 1990.

4/ D. Rubenstein, "Lessons of Love", CA Magazine, March 1991.

5/ Report of the Secretary-General, Accounting for environmental protection measures, E/C.10/AC.3/1991/5, March 1991.